

WFLHD SUPPLEMENT 9.6.9.5-1

9.6.9.5 Development of Prices

Add the following to the end of [Section 9.6.9.5](#). This supplement explains how prices are developed at the various project development review stages.

Provide a revised cost estimate (Engineer's Estimate) at each major project development review phase (Preliminary, Intermediate, Plan-in Hand, Final). The Estimate should become more detailed and complete at each subsequent phase. Develop unit prices for each defined pay item using either historic Bid data, or Cost Based pricing (using equipment costs, labor costs, material costs and production rates), as appropriate for each pay item.

Inflate the costs used in the Engineer's Estimates for pay items, wage rates, equipment rates and material costs. Use current inflation trends in highway construction prices. Several cost inflation indexes are available to track short and long-term construction pricing trends. Recommended resources include:

- FHWA [Price Trends in Federal-Aid Highway Construction Projects](#)
- American Road and Transportation Builders Association (ARTBA) [Price Index](#)
- Washington State DOT [Trends in Highway Material Costs](#)
- Oregon DOT [Cost Estimating](#)
- Oregon DOT [Construction Cost Trends](#)

When updating historic bid prices or other cost data, use an inflation time period that begins at the year and month the **historic bid or cost data** originates from, and ends in the year and month of the **proposed project's anticipated construction completion**.

Estimates of major pay items involving asphalt cement products should be verified with the WFL Materials Engineer prior to submittal at the major review phases.

Provide a cost estimate at each project development review phase according to the following guidelines:

- **Preliminary:** provide a cost estimate for all major work items (asphalt pavement, excavation, etc). Smaller work items may be grouped into major categories (Temporary Traffic Control, Drainage, etc.) for estimating purposes. Pay items need not be defined at this review phase. Grouped items may be estimated as a percentage of the total project cost based upon historical data of similar projects. Because of the high uncertainty of the estimate at this phase, a 15% contingency should be added to the overall construction estimate.
- **Intermediate:** Estimate the actual costs of some items, as needed to verify the estimates of grouped items from the preliminary phase cost estimate. Develop a

defined pay item and separate cost estimate for each major work item, using bid histories or Cost based pricing. Because of the high uncertainty of the estimate at this phase, a 10% contingency should be added to the overall construction estimate.

- **Plan-in-Hand:** Develop separate cost estimates and pay items for virtually every work item in the project. Develop unit prices for each defined pay item using Bid histories or Cost based pricing. Verify and document construction price inflation rates used and any pay item incentives. Add additional percentage costs for any work still undefined. For the remaining uncertainty of the estimate at this phase, a 5% contingency should be added to the overall construction estimate.
- **Final:** Pay items are defined for all work specified in the contract. Verify and document construction price inflation rates and any pay item incentives. No contingency is included for the final estimate.

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